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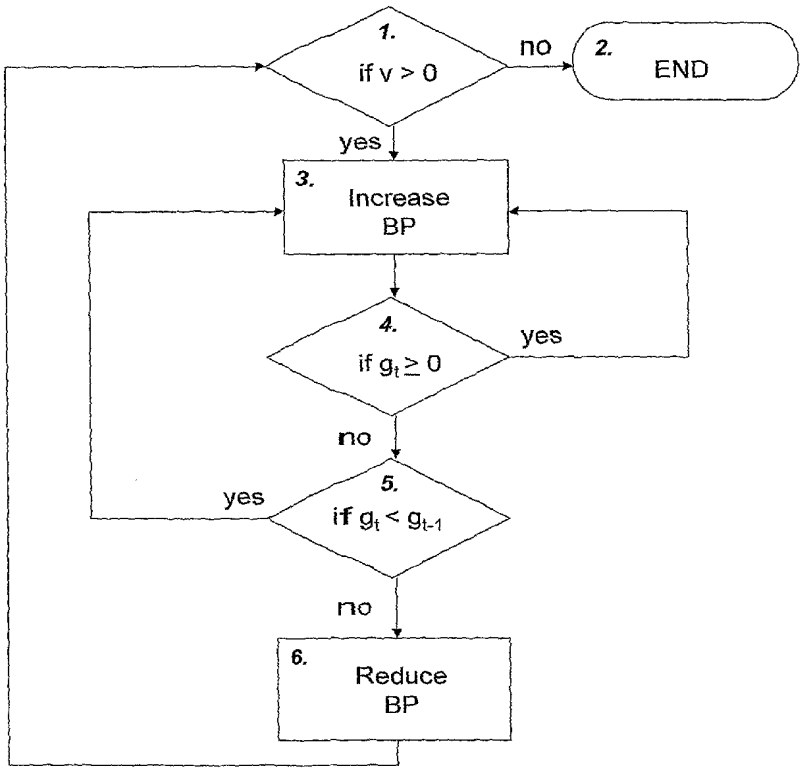
(54) Title: BRAKE FUNCTION BASED ON CONTROLLING ACCORDING TO ACCELERATION



(57) Abstract: A brake controller function to optimally brake a wheel of a vehicle in motion, such as an aircraft. The brake pressure control self regulates by means of applying brake pressure in accordance with vehicle acceleration information and the change in acceleration over time in the horizontal plane. Vehicle acceleration and information about its change enable a brake pressure control function to determine the brake pressure associated with maximum obtainable retardation for a vehicle at that given point in time. By continuously monitoring acceleration change and detecting retardation pinnacles, the culmination and turning points of retardation, with their associated brake pressure, maximum braking ability is assured at any given time. By applying acceleration data in real time as a controls reference in a brake logic control function to increase or reduce brake pressure, such a brake control function will assure a brake pressure perfectly fit with net of all the forces that a vehicle is subjected to. It will ensure optimal brake level with respect the vehicle tire/pavement surface interface.

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